

UNIVERSIDAD DE CANTABRIA

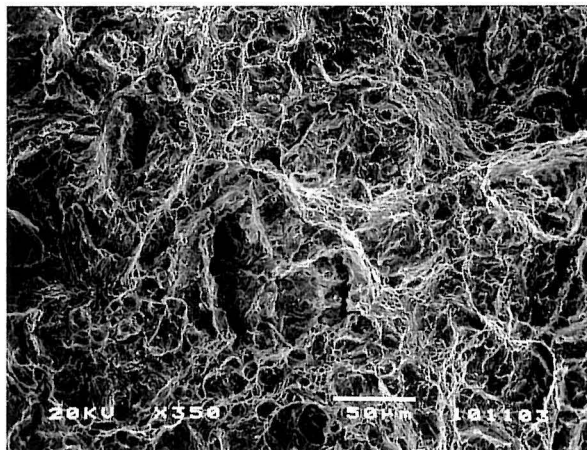
**DEPARTAMENTO DE CIENCIA E INGENIERIA DEL
TERRENO Y DE LOS MATERIALES**

TESIS DOCTORAL

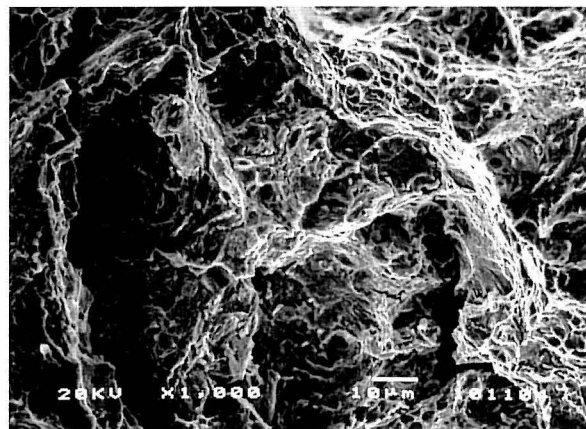
**FISURACION INDUCIDA POR HIDROGENO DE ACEROS
SOLDABLES MICROALEADOS: CARACTERIZACION Y
MODELO DE COMPORTAMIENTO**

JOSE ALBERTO ALVAREZ LASO

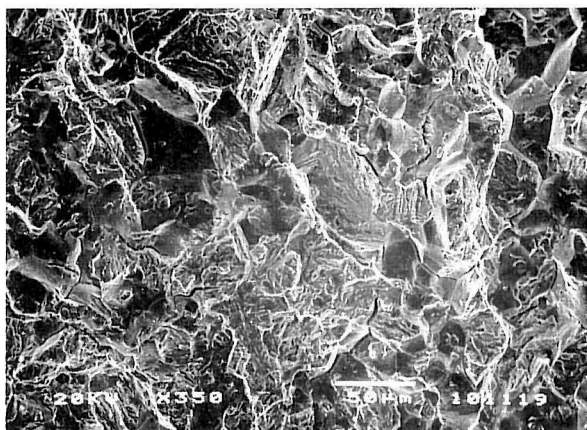
Santander, Mayo 1998



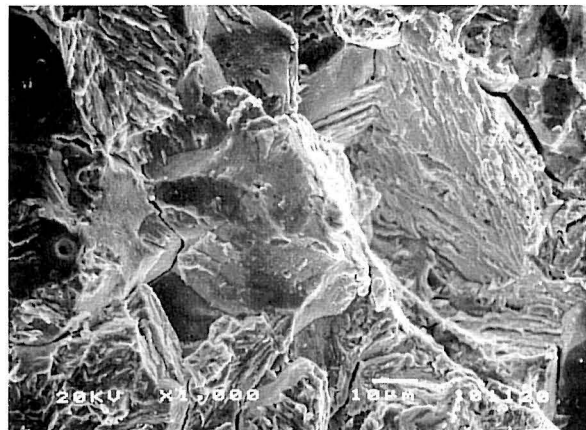
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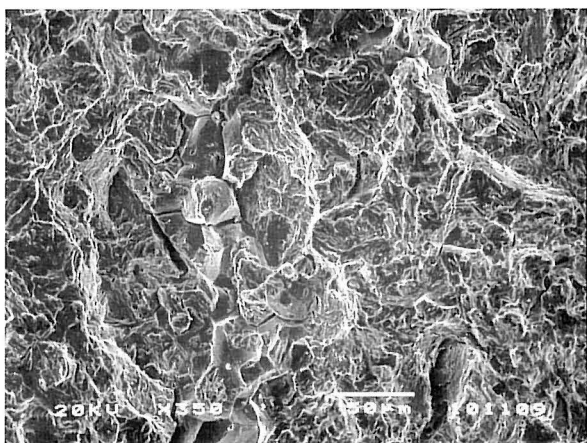
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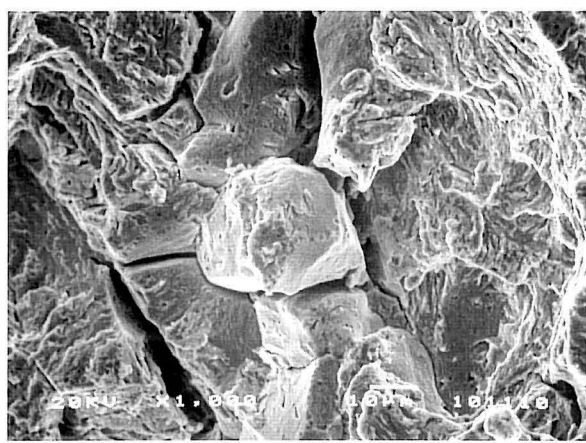
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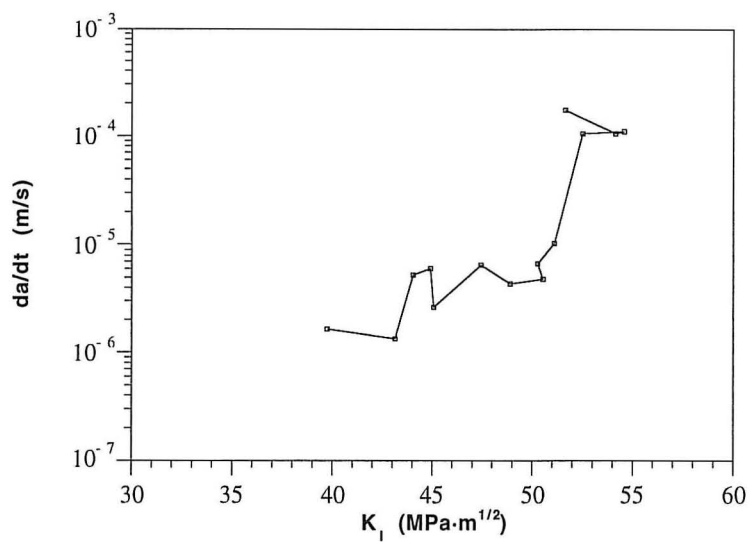
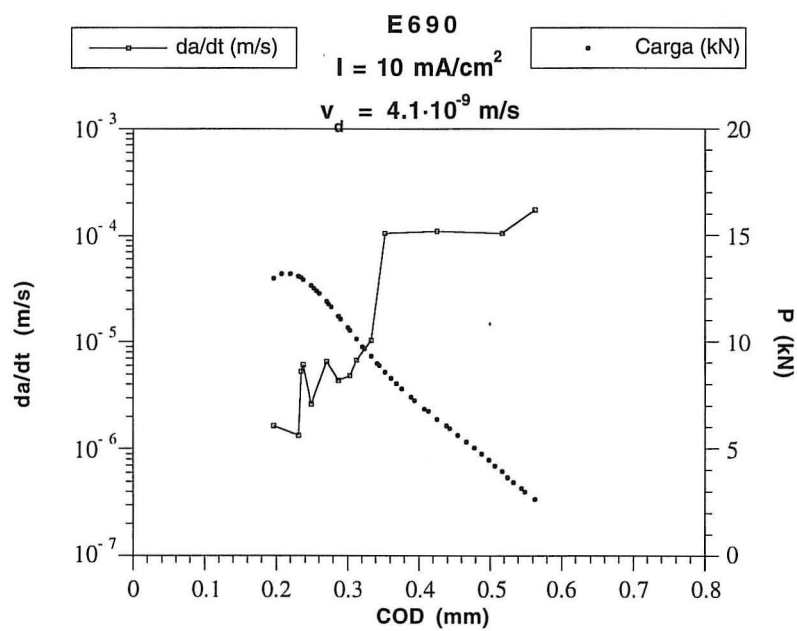


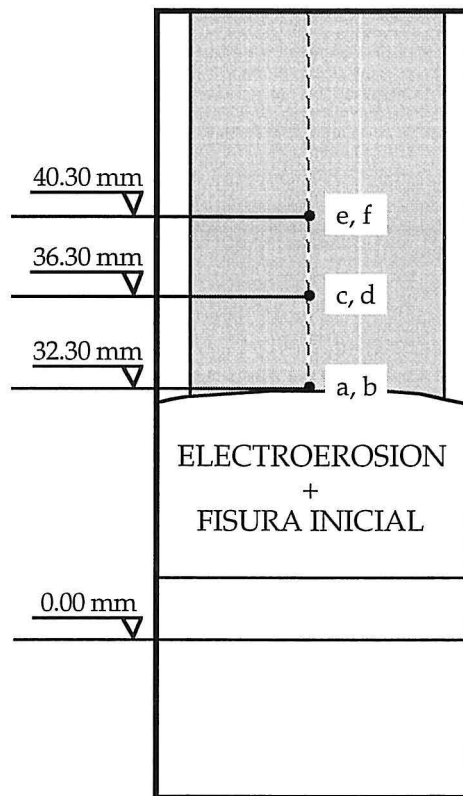
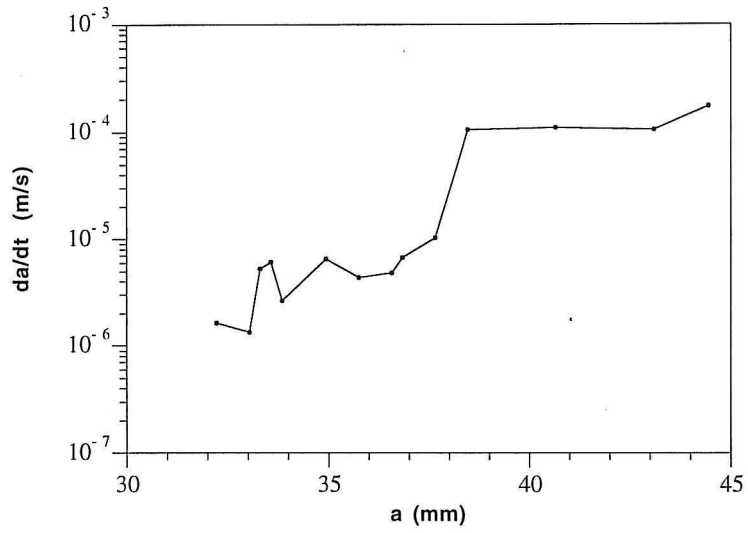
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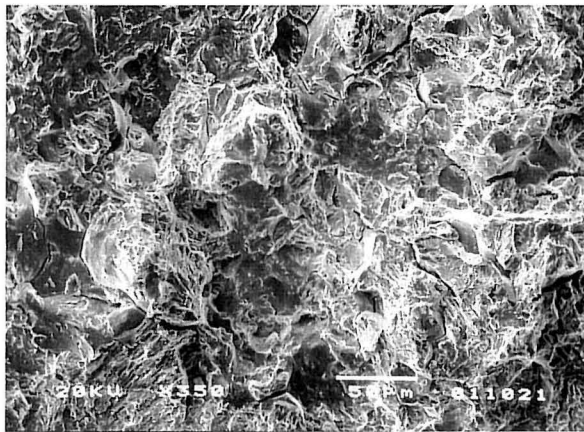


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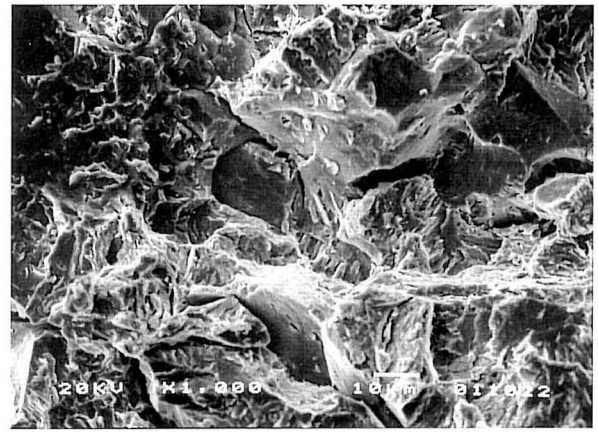
CL1.J11



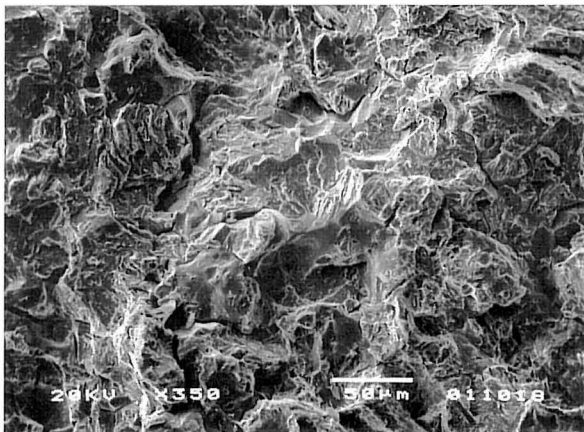




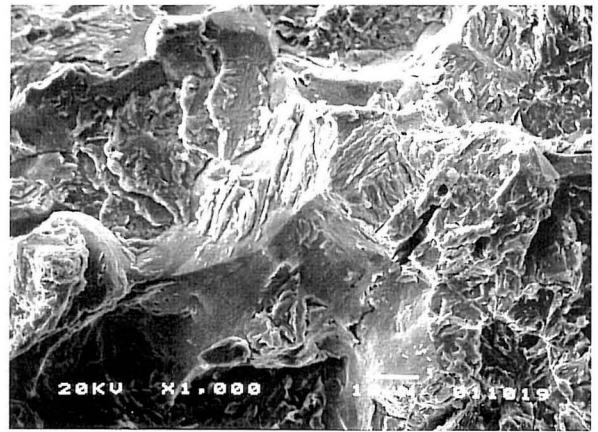
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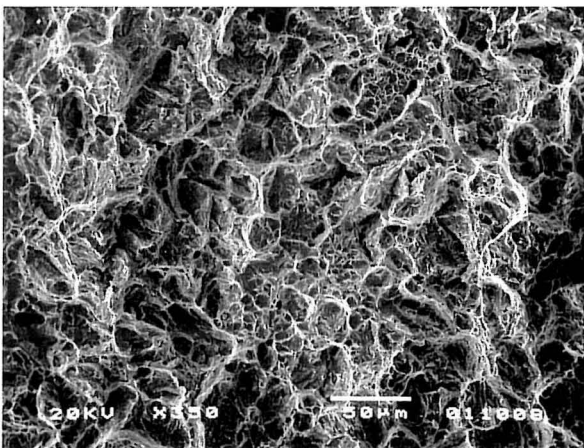
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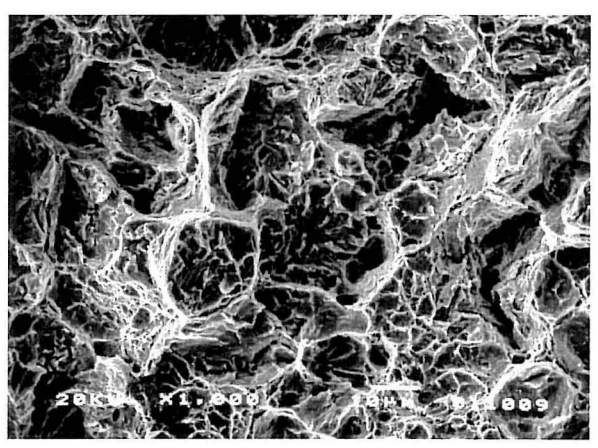
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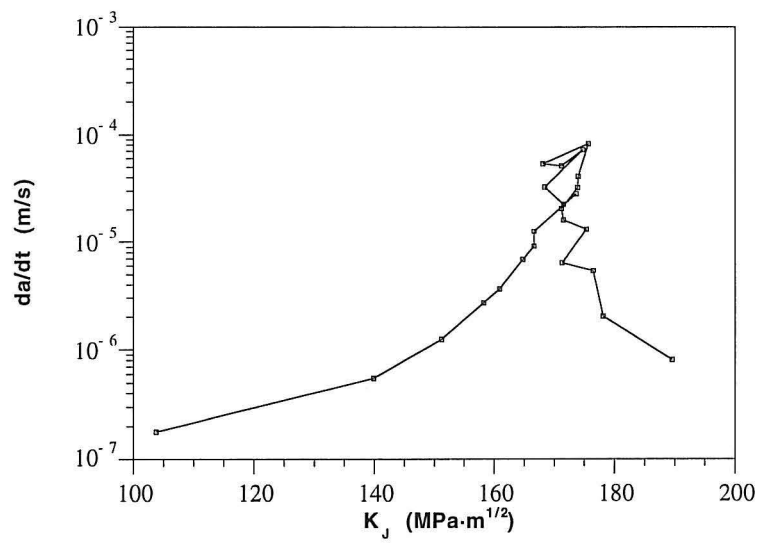
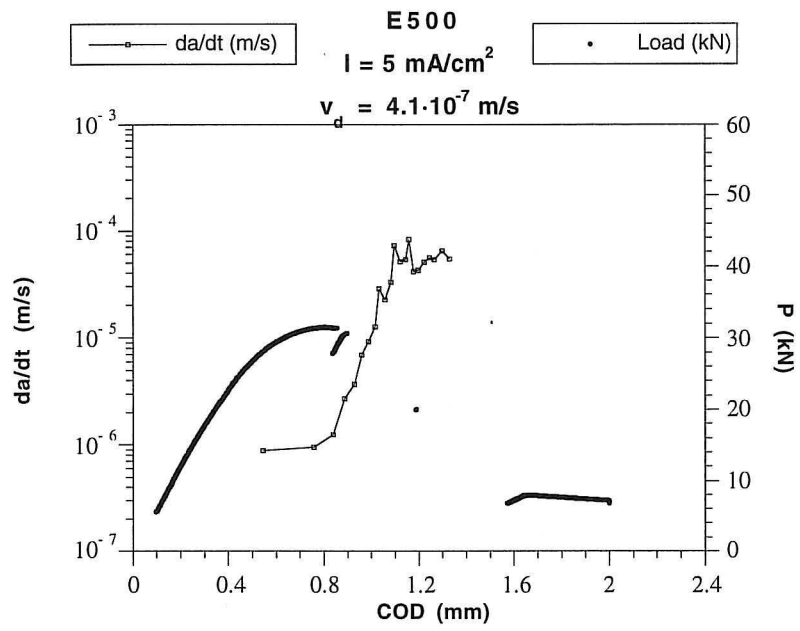
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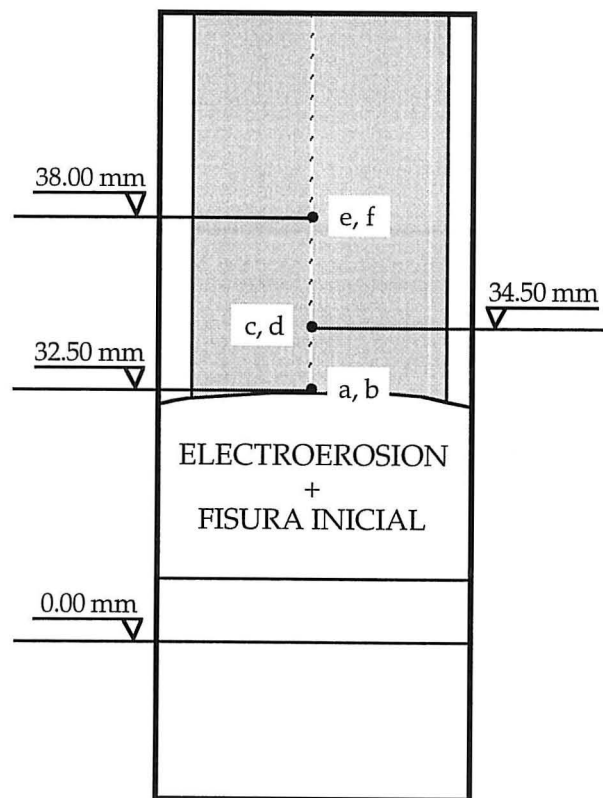
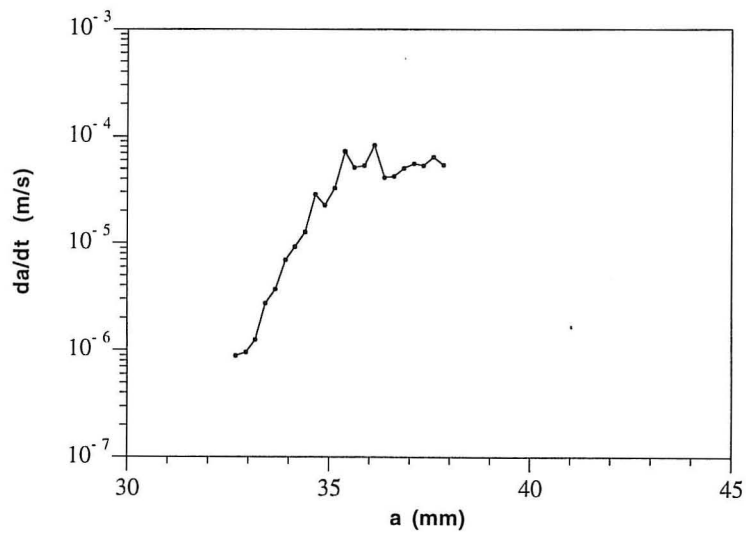


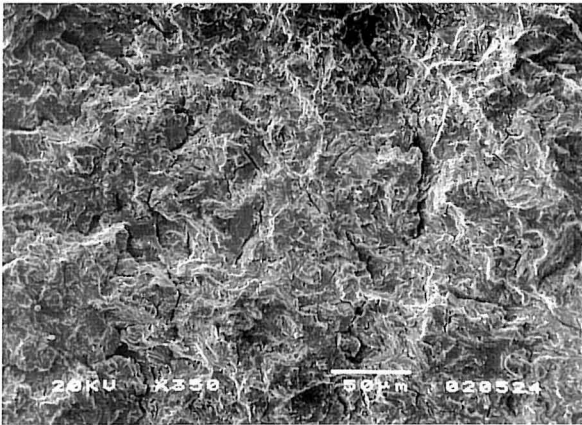
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CL1.J10

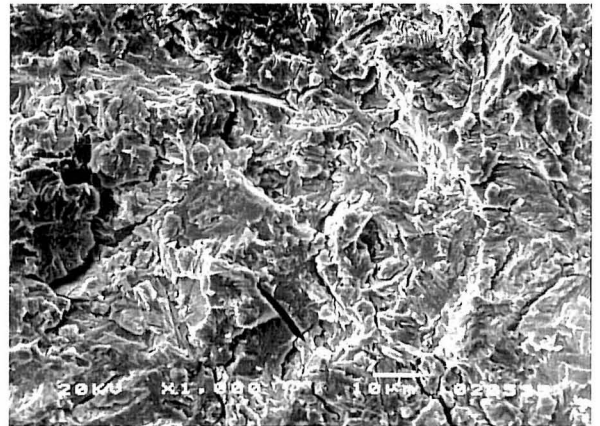
Lámina A-9



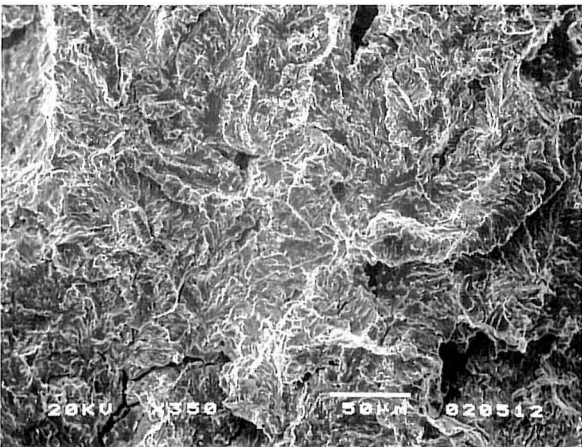




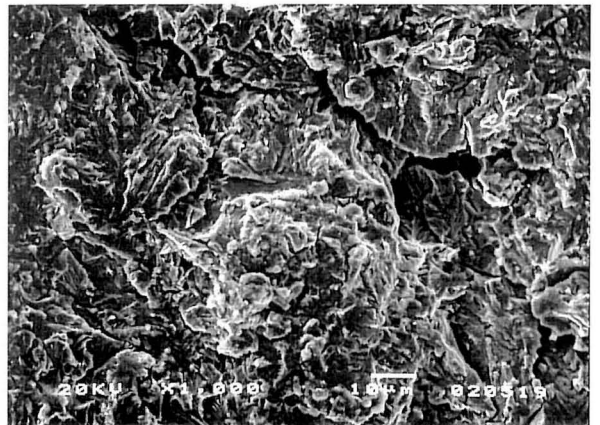
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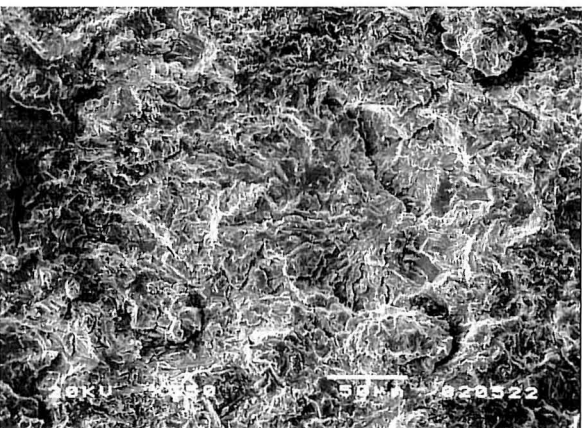
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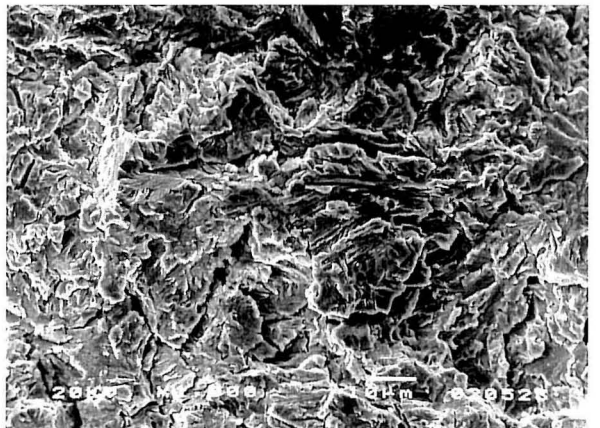
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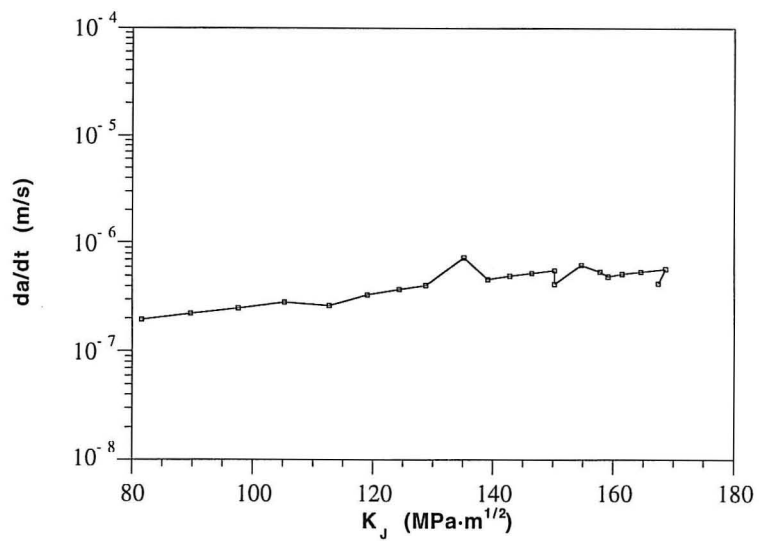
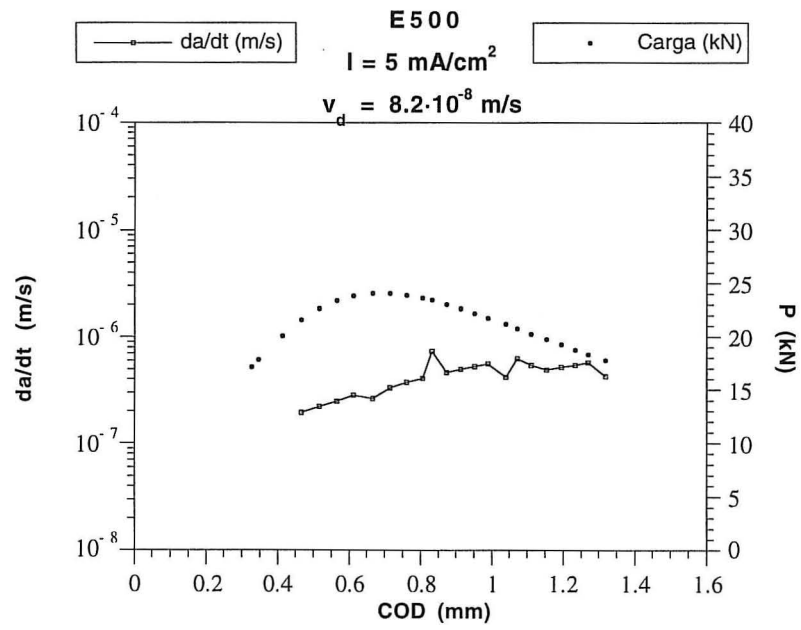


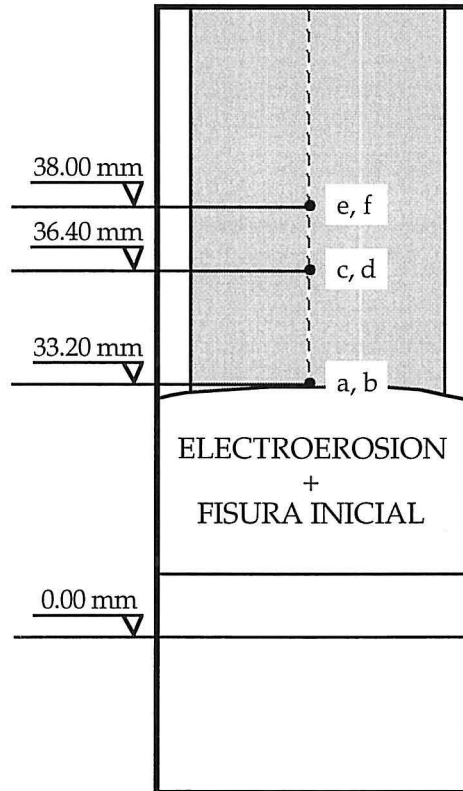
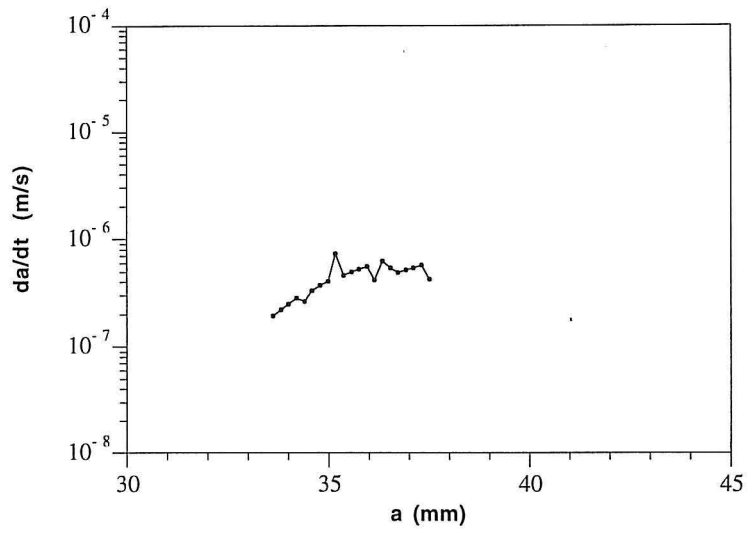
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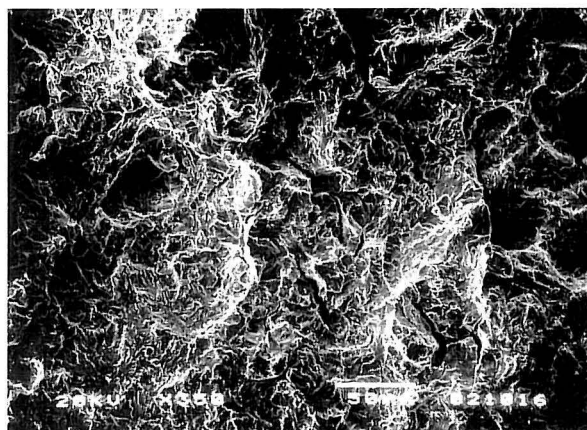


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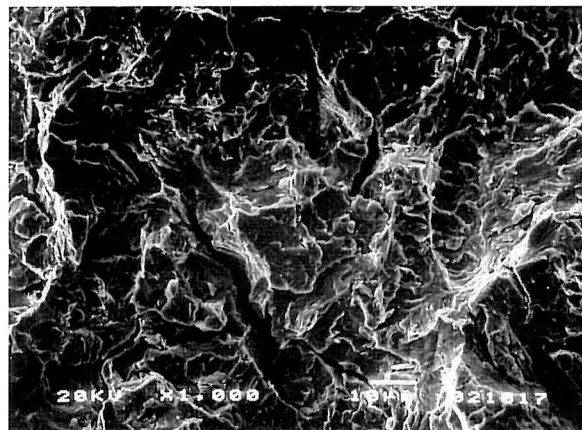
CL2.J5



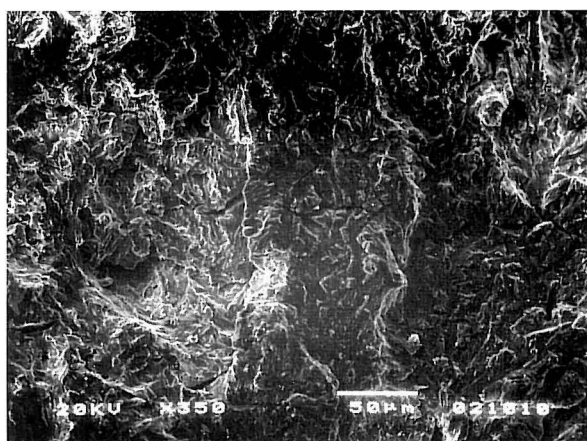




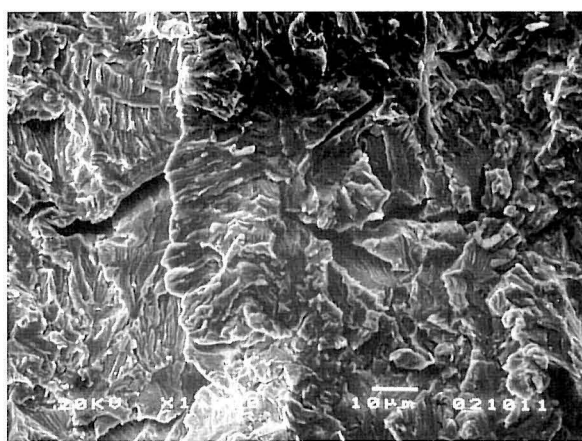
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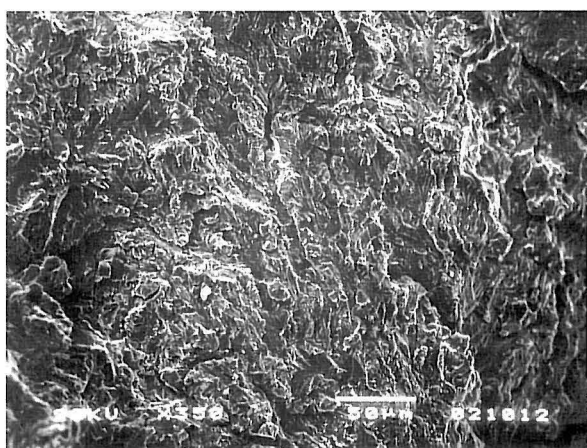
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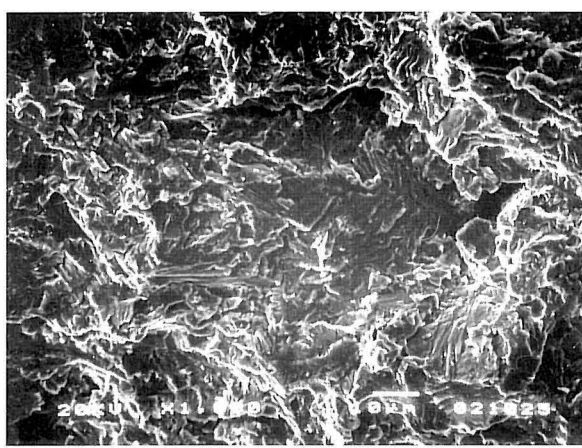
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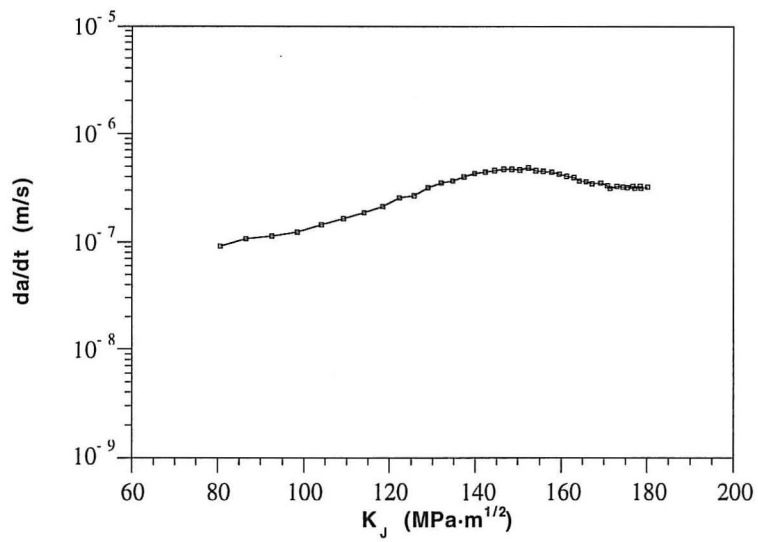
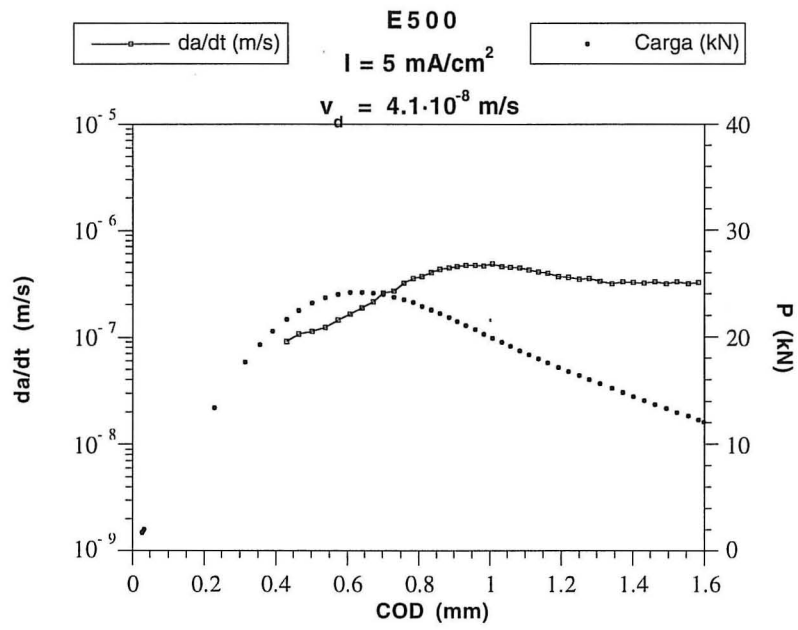


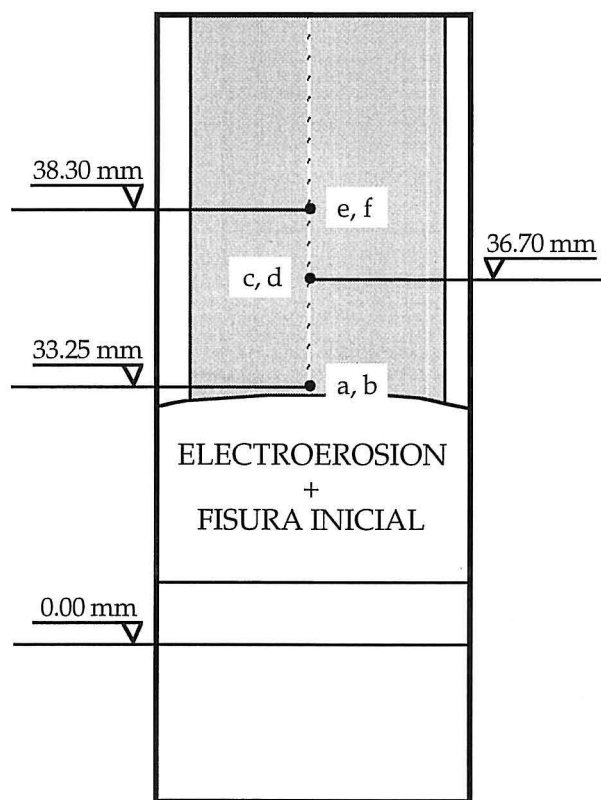
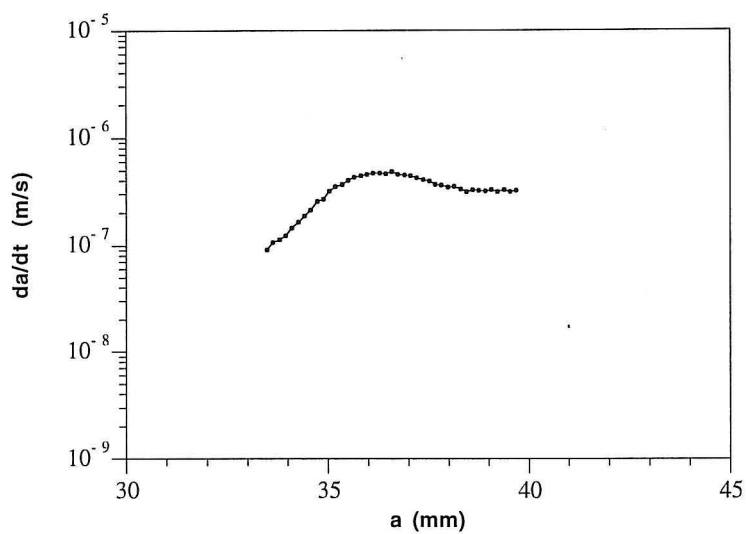
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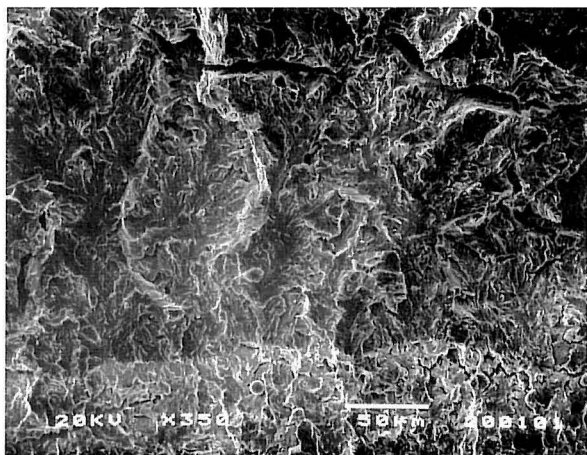


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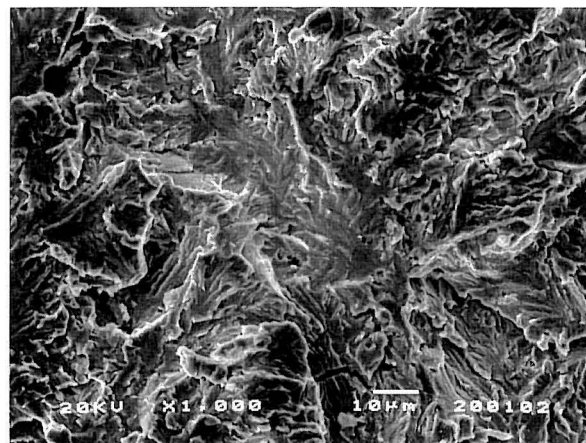
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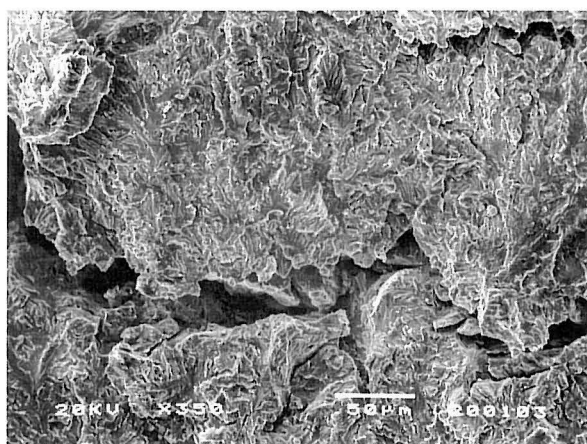




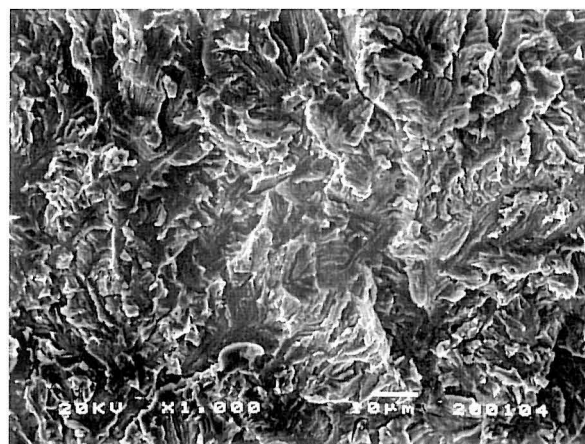
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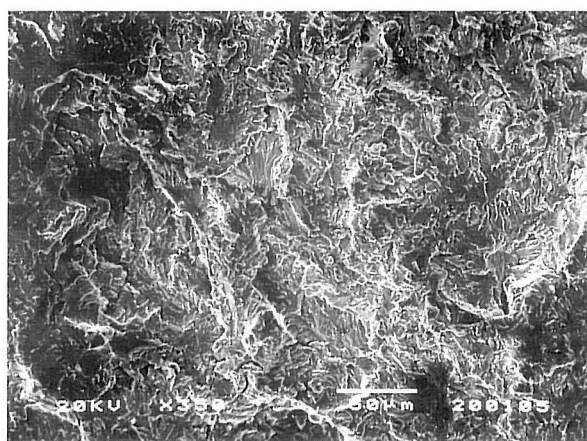
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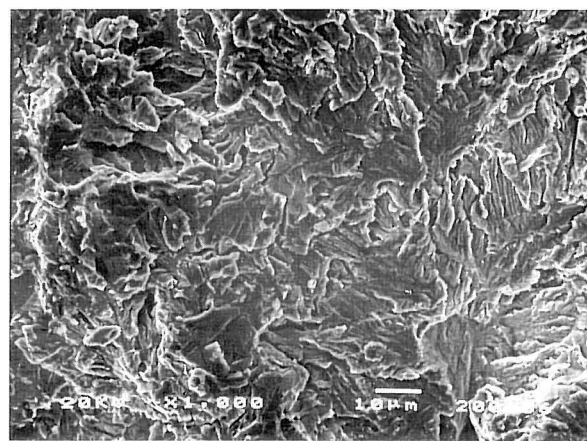
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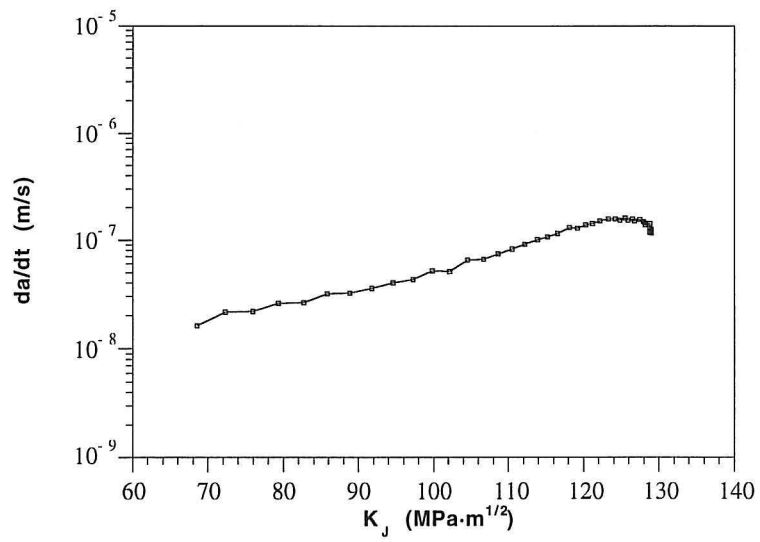
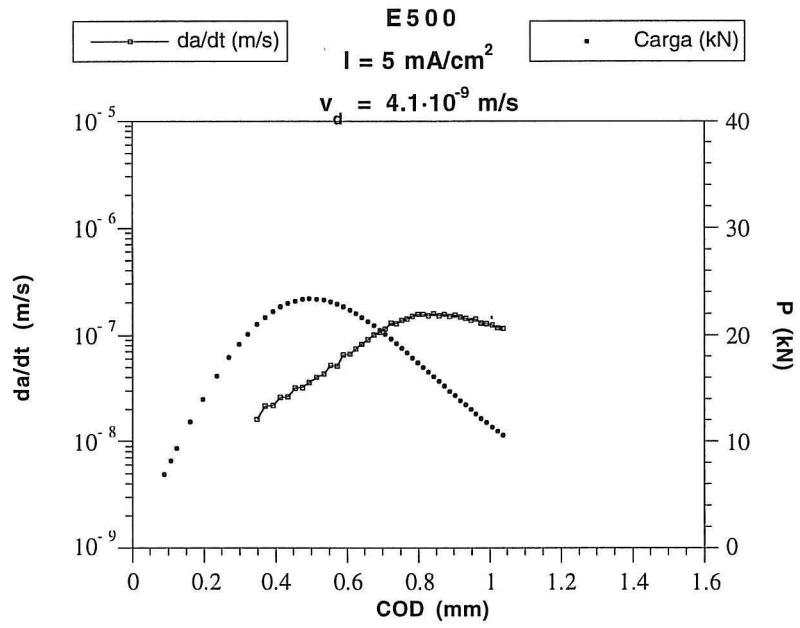


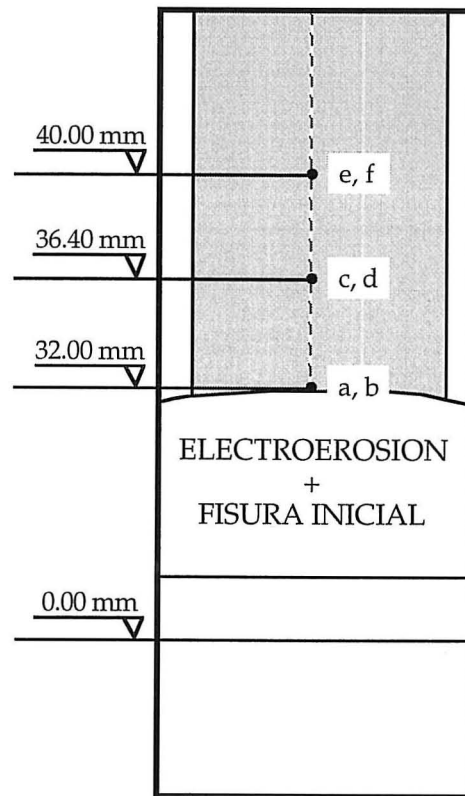
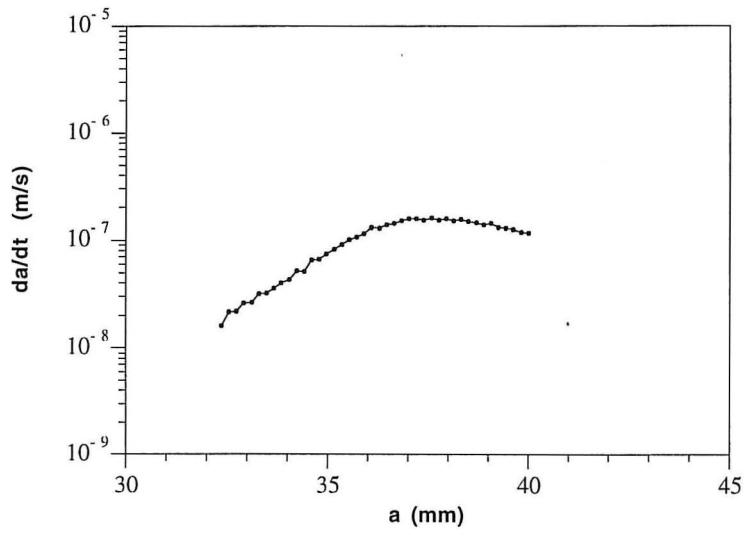
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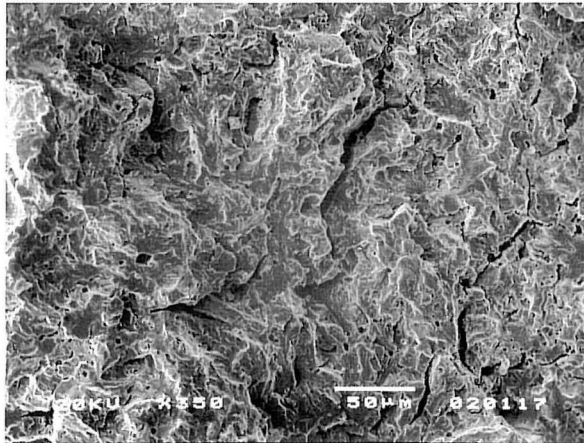


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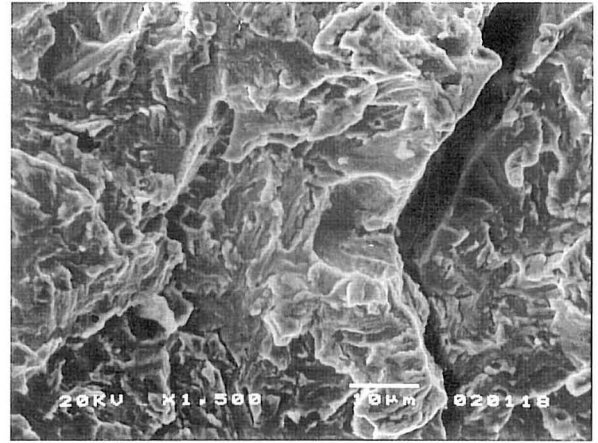
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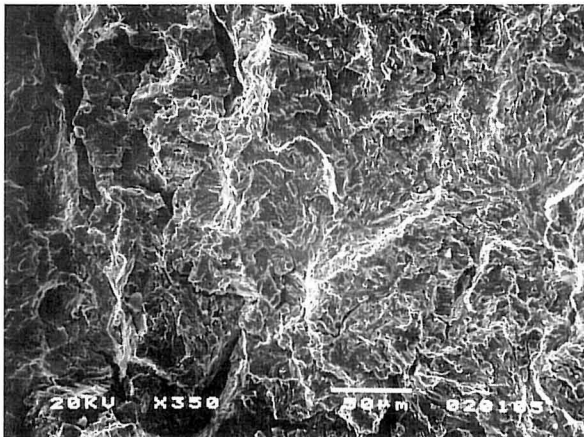




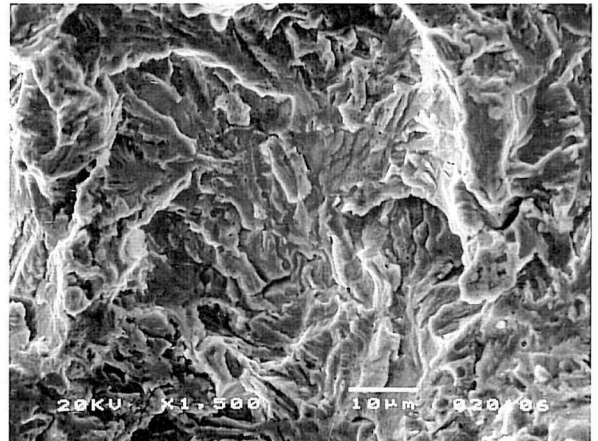
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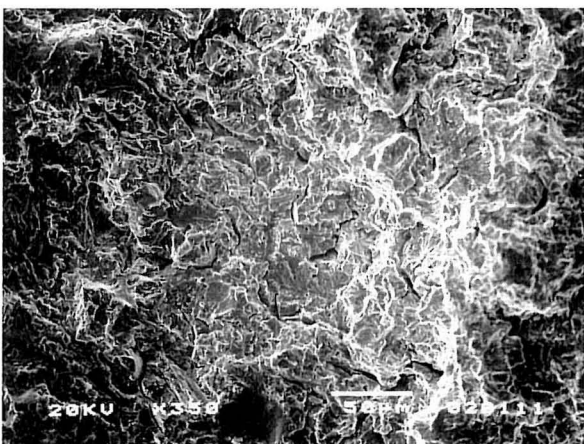
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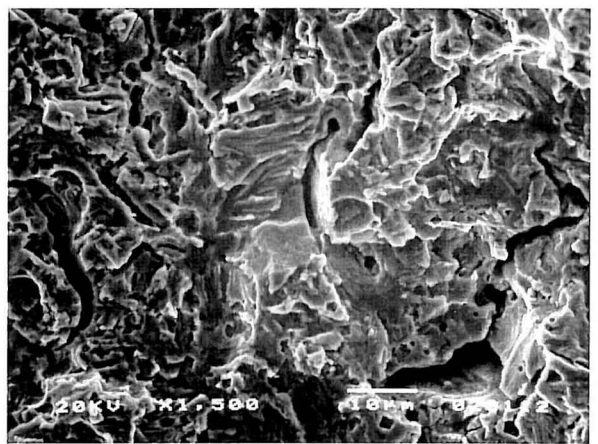
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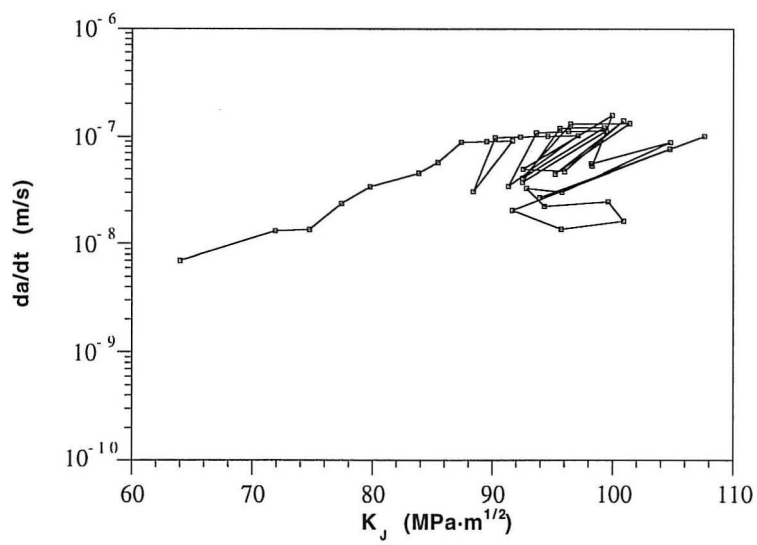
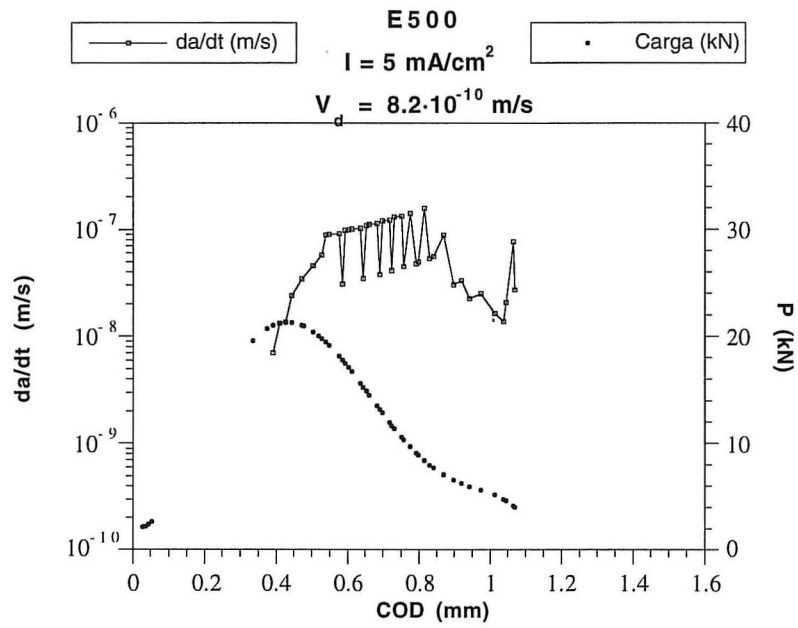


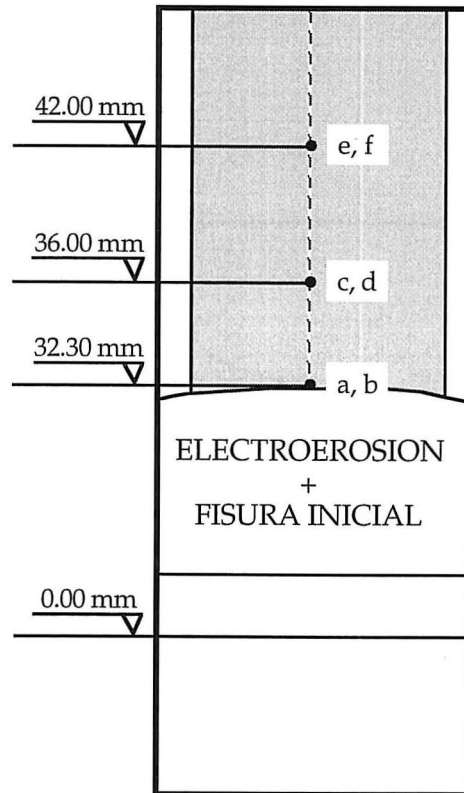
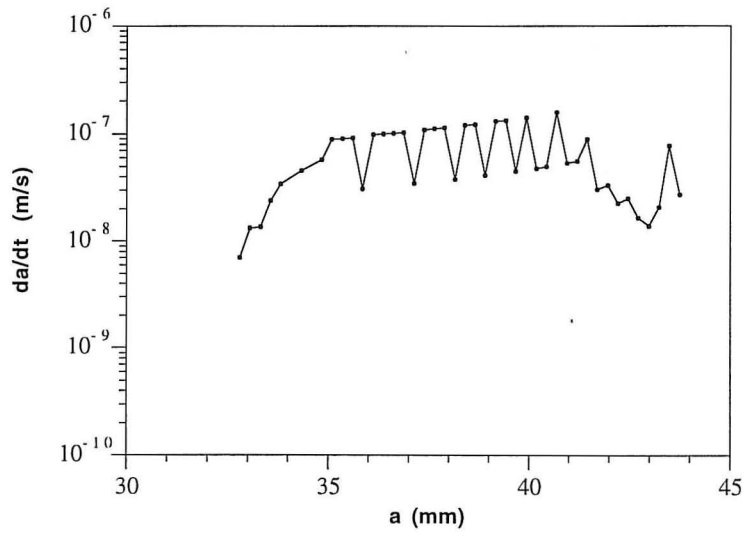
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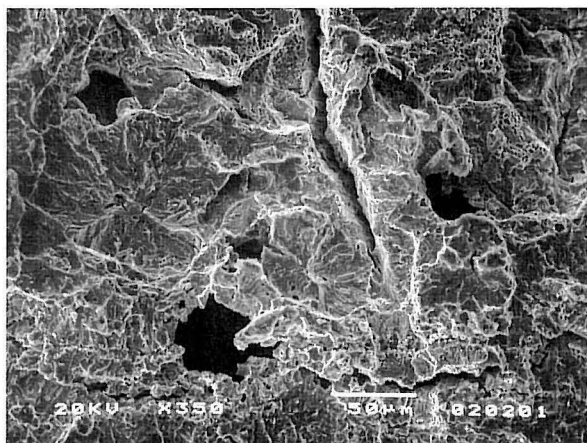


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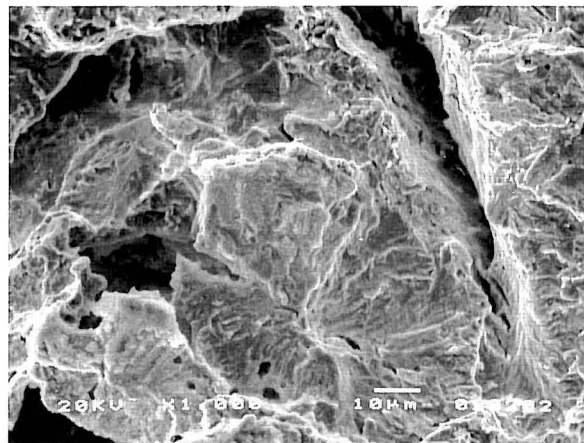
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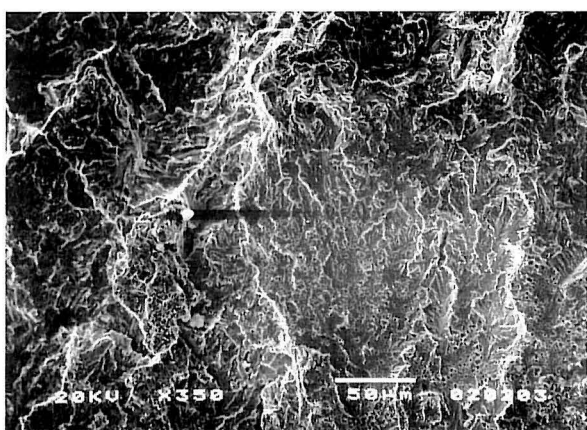




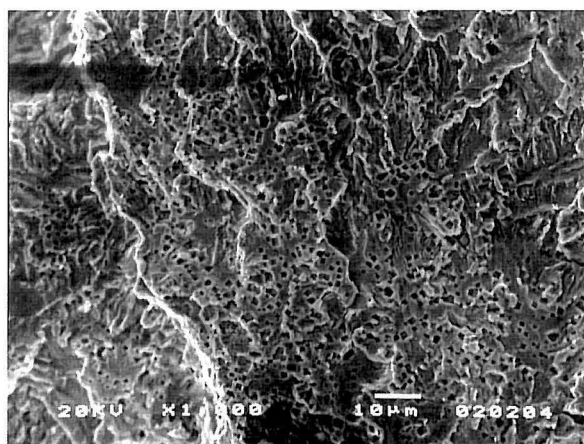
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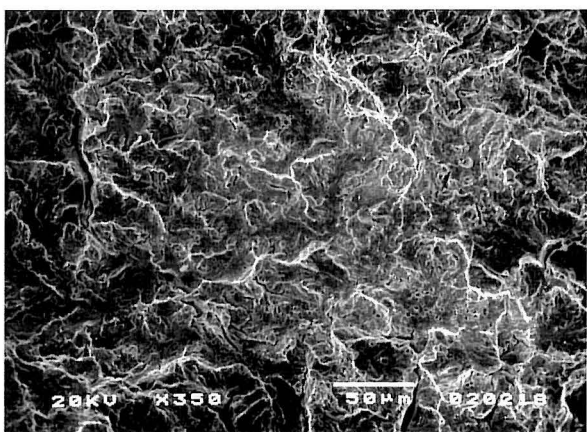
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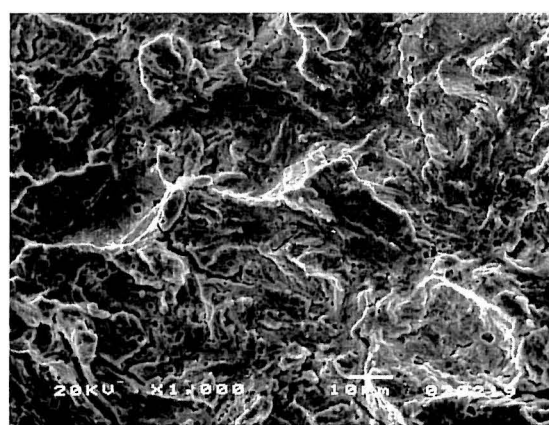
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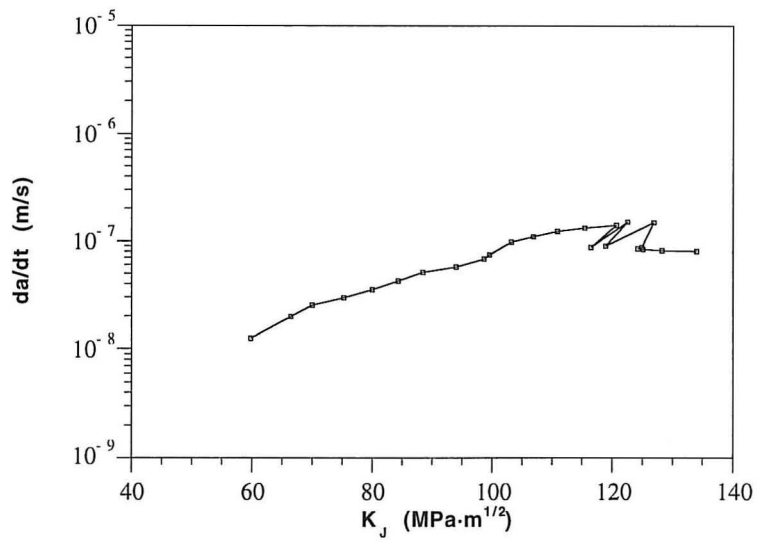
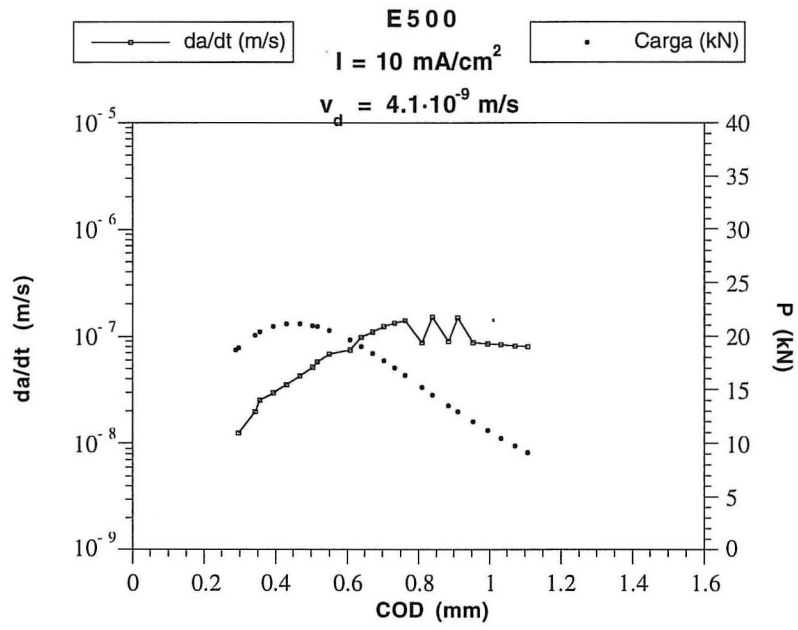


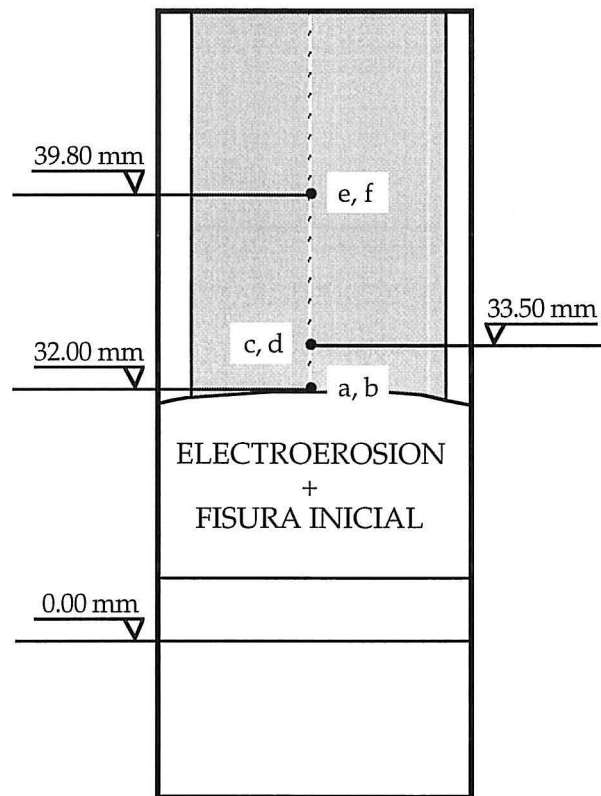
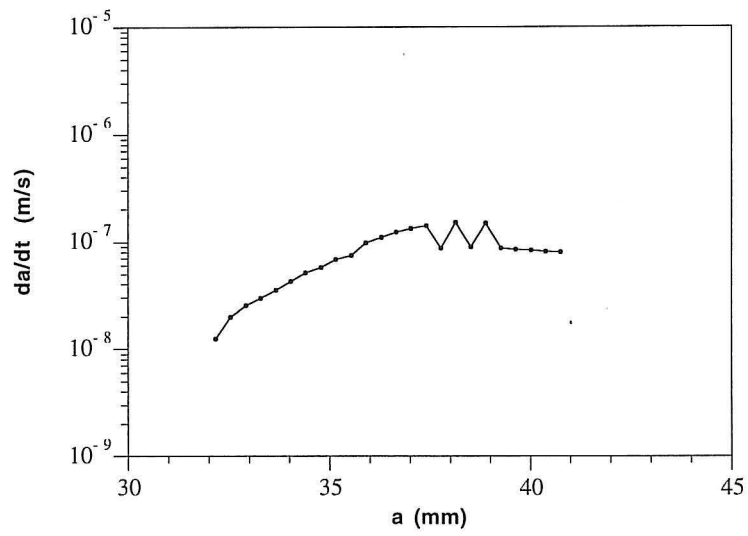
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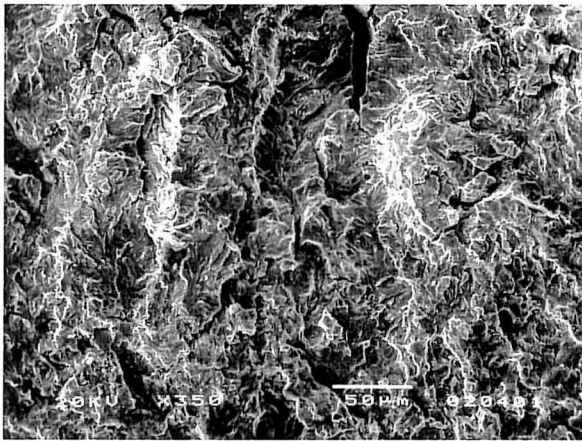


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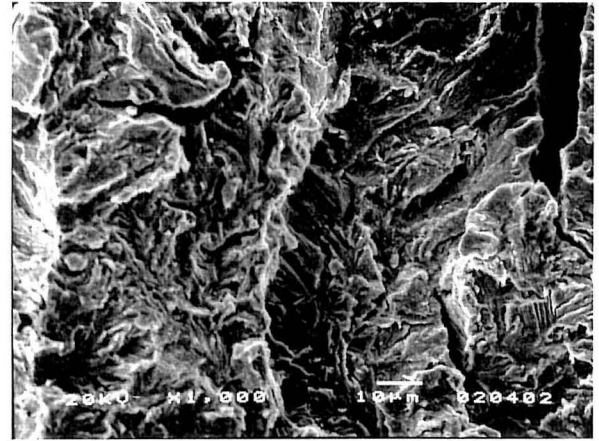
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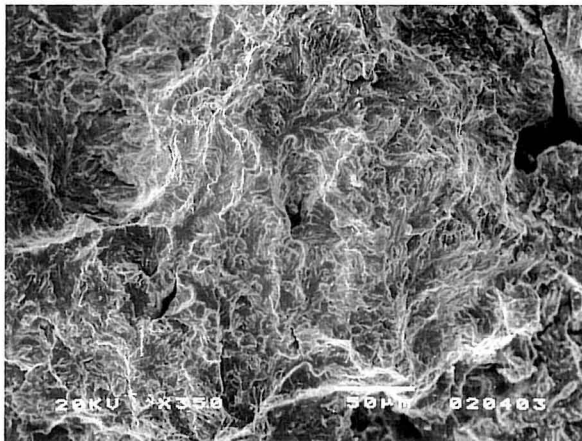




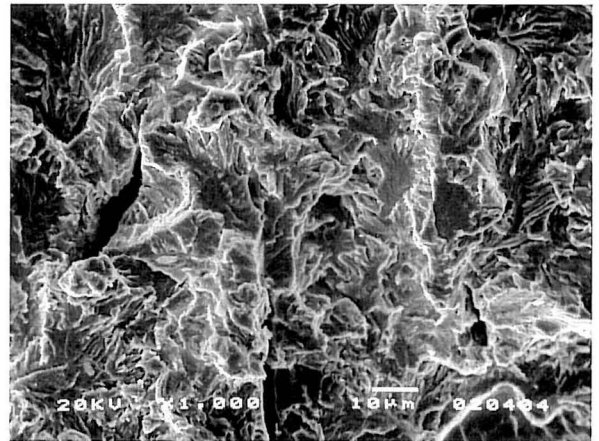
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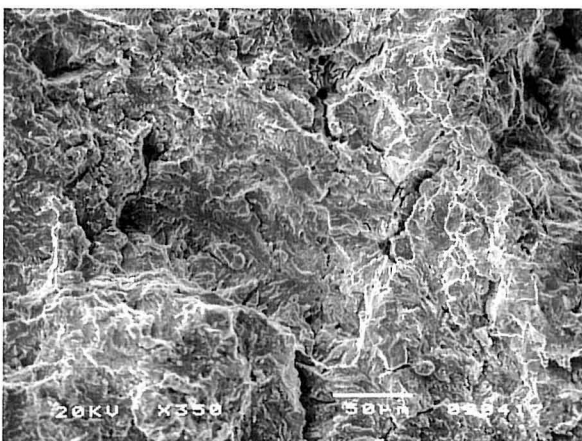
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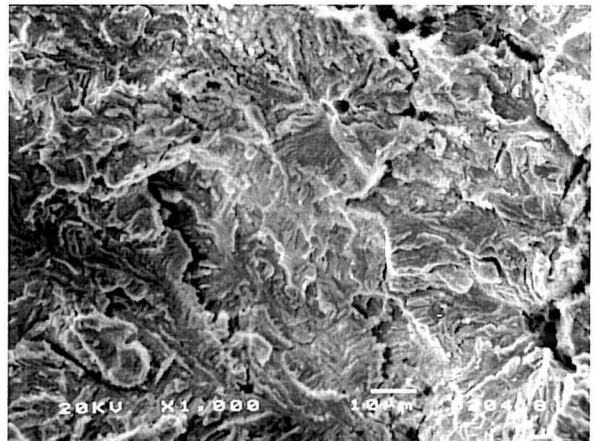
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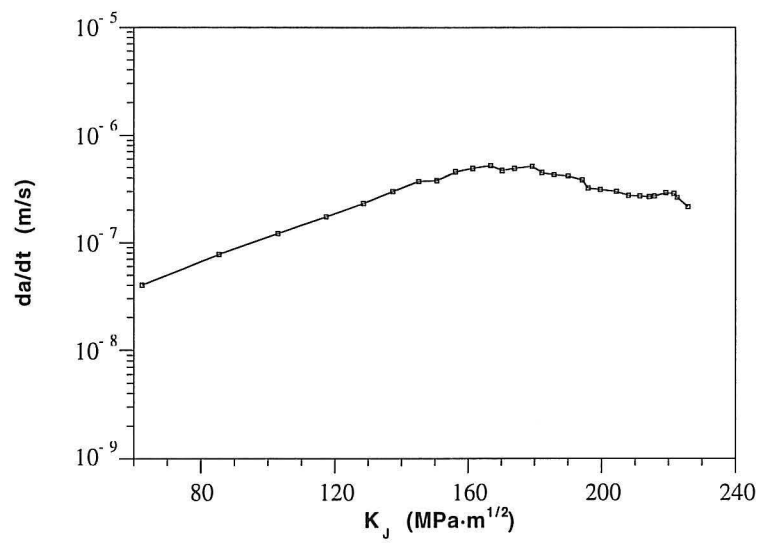
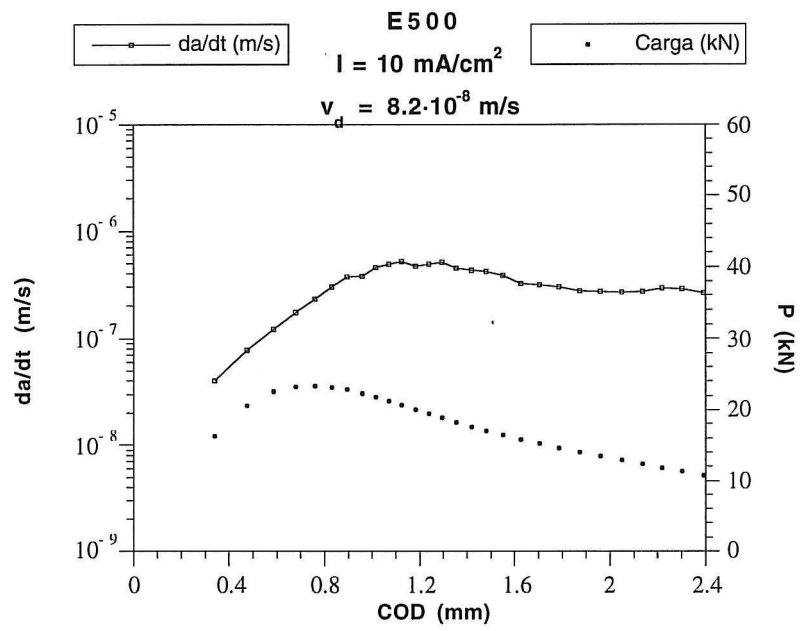


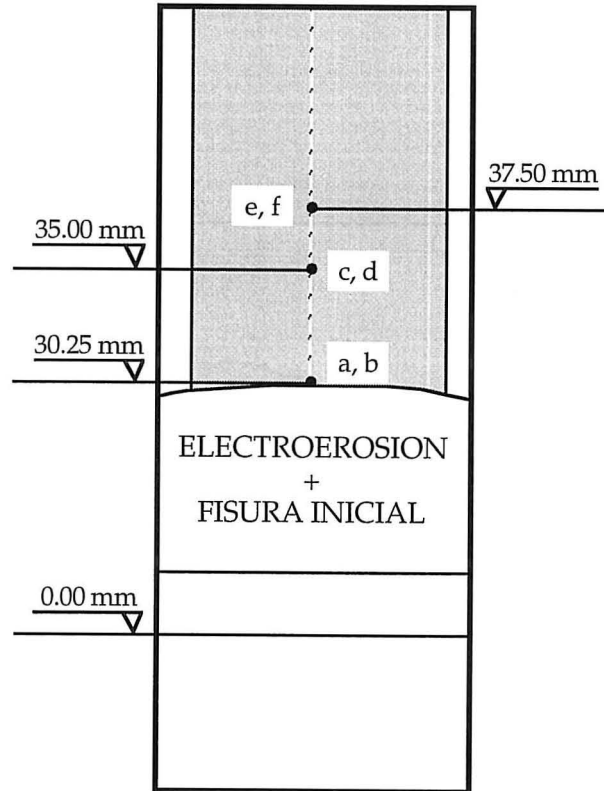
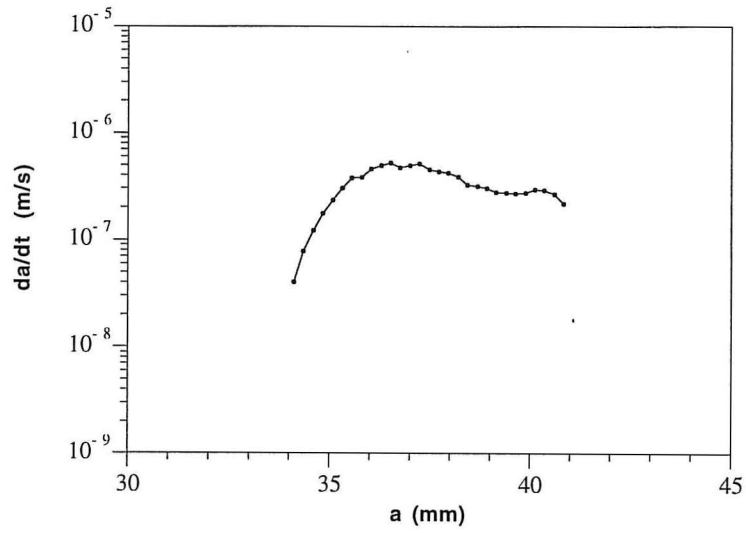
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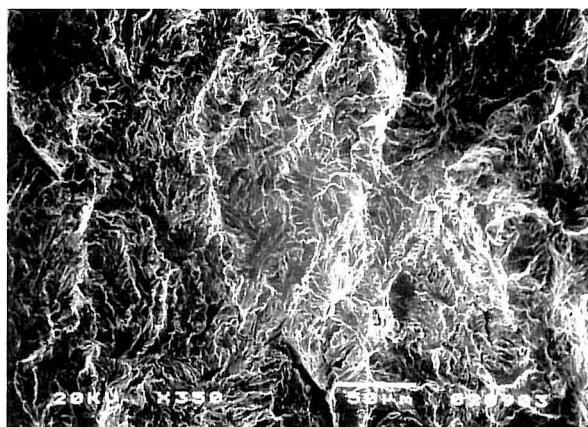


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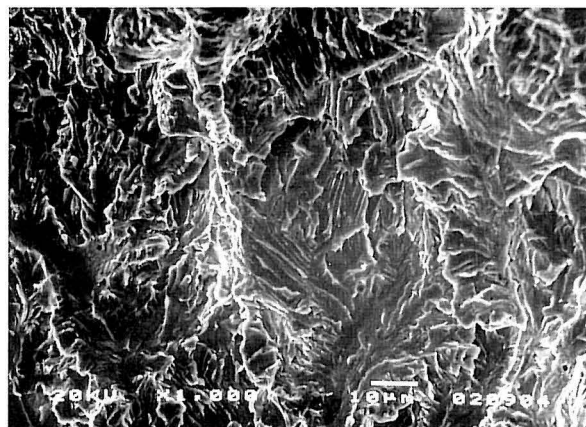
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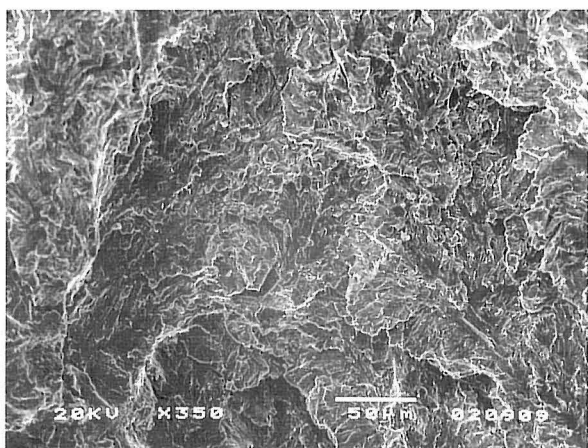




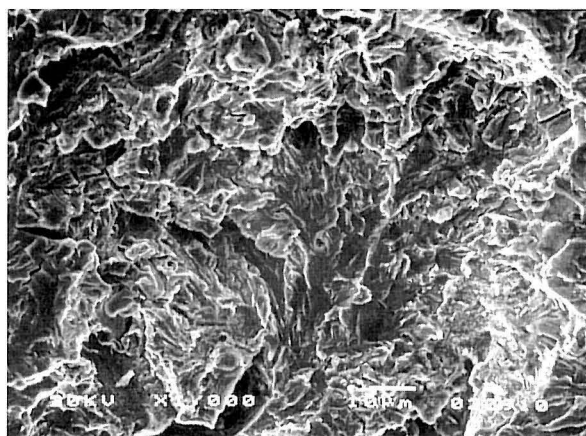
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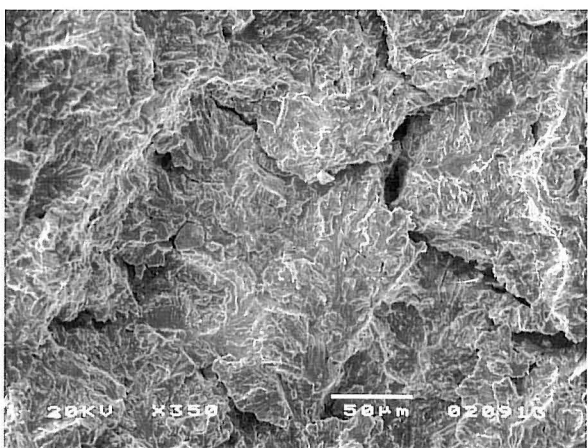
(b)



(c)



(d)



(e)



(f)

CL2.J9